

Algebra Worksheet – Section 10.5
Factoring Polynomials of the form

$$x^2 + bx + c$$

Name _____
Block _____

Factor

1. $x^2 + 3x + 2$

2. $x^2 - x - 2$

3. $x^2 + x - 6$

4. $a^2 + a - 12$

5. $a^2 - 2a - 35$

6. $b^2 + 8b + 16$

7. $b^2 + 7b - 8$

8. $y^2 - y - 6$

9. $x^2 - 4x - 45$

10. $y^2 - 8y + 15$

11. $p^2 + 12p + 27$

12. $b^2 + 9b + 20$

13. $b^2 + 3b - 40$

14. $a^2 - 15a + 36$

15. $c^2 + 11c + 18$

16. $x^2 + 21x + 100$

Solve each equation by factoring

17. $x^2 + 5x + 6 = 0$

18. $b^2 - b - 20 = 0$

19. $y^2 - y - 72 = 0$

20. $x^2 - 12x = -11$

Algebra Worksheet – Section 10.5
Factoring Polynomials of the form
 $x^2 + bx + c$ with GCFs

Name _____
Block _____

Factor Completely

1. $2x^2 + 6x + 4$

2. $4a^2 - 12a + 8$

3. $10a^2 + 10 - 20$

4. $7a^2 - 14a - 21$

5. $3y^2 - 15y + 18$

6. $a^3 - 5a^2 + 4a$

7. $x^4 - 15x^3 + 56x^2$

8. $b^4 - 3b^3 - 10b^2$

9. $2a^3 + 8a^2 - 64a$

10. $3a^3 - 9a^2 - 54a$

11. $9p^2 - 54p + 72$

12. $4y^3 - 4y^2 - 24y$

13. $3x^4 - 21x^3 + 10x^2$

14. $5x^4 - 10x^3 - 75x^2$

Solve each equation by factoring

15. $3x^2 + 15x + 18 = 0$

16. $2x^2 + 16x + 24 = 0$

17. $5x^2 - 35x + 60 = 0$

18. $x^3 + 11x^2 - 12x = 0$

19. $2y^2 + 10y = 28$

20. $6y^2 + 36 = 30y$